

[illegible]

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(14)	515	OPCODE DEFINITIONS
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```
0000 1      .TITLE MAC$SYMTAB      PERMANENT SYMBOL TABLE
0000 2      .IDENT 'V04-000'
0000 3
0000 4
0000 5 *****
0000 6 *
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0000 24 *
0000 25 * *****
0000 26
0000 27
0000 28
0000 29 ++
0000 30 FACILITY:      VAX MACRO ASSEMBLER OBJECT LIBRARY
0000 31
0000 32 ABSTRACT:
0000 33
0000 34 The VAX-11 MACRO assembler translates MACRO-32 source code into object
0000 35 modules for input to the VAX-11 LINKER.
0000 36
0000 37 ENVIRONMENT:  USER MODE
0000 38
0000 39 AUTHOR: Benn Schreiber, CREATION DATE: 20-AUG-78
0000 40
0000 41 MODIFIED BY:
0000 42
0000 43 V03-001 MTR0031      Mike Rhodes      13-Apr-1983
0000 44 Add .LINK directive to the directives symbol list.
0000 45
0000 46 V02.20 MTR0001      Mike Rhodes      09-Nov-1981
0000 47 Add new symbol block for /DEBUG parameter symbols.
0000 48 The functions are the same as combinations of the
0000 49 /Enable and /Disable qualifiers utilizing the DEBUG
0000 50 and TRACEBACK parameters.
0000 51
0000 52 V02.19 PCG0009      Peter George      28-Aug-1981
0000 53 Delete multiple CLRG definition.
0000 54
0000 55 V02.18 CNH0042      Chris Hume      28-Oct-1980
0000 56 De-optimize boundary valued backward references if indexing
0000 57 requested. Allow the architecturally legal immediate mode in
```

```
0000 58 : address and vield contexts and also the practically useless
0000 59 : indexed immediate mode.
0000 60 : (ACTREF.MAR 02.15, ACTSTA.MAR 02.15, DEFINE.MAR 02.17)
0000 61 :
0000 62 : V01.17 RN0014 R. Newland 10-Oct-1979
0000 63 : Support for G_floating, H_floating and Octaword datatypes
0000 64 :
0000 65 : V01.16 RN0013 R. Newland 27-Sep-1979
0000 66 : Add VEC attribute name to PSECT options
0000 67 :
0000 68 : V01.15 RN0005 R. Newland 12-Aug-1979
0000 69 : Variable symbol name storage
0000 70 :
0000 71 : V01.13 RN0004 R. Newland 15-Mar-1979
0000 72 : Insert CLRG, MOVAG and PUSHAG into opcode definitions
0000 73 :
0000 74 : V01.14 RN0006 R. Newland 21-Aug-1979
0000 75 : Insert .REPEAT into table of directives treated
0000 76 : specially within a macro body
0000 77 :
0000 78 : V01.12 RN0001 R. Newland 01-FEB-1979
0000 79 : Insert CVTDH and CVTGF into opcode definitions
0000 80 :
0000 81 :--
0000 82 :
0000 83 $MAC_GENVALDEF ;DEFINE COMMONLY USED SYMBOLS
0000 84 $MAC_SYMBLKDEF ;DEFINE SYMBOL BLOCK OFFSETS
0000 85 $MAC_CTLFLGDEF ;DEFINE FLAG BIT VALUES
0000 86 $MAC_CRFLAGDEF ;DEFINE CROSS REF FLAG BITS
0000 87 $MAC_GRAMMARDEF ;DEFINE VAX-11 MACRO TERMINAL GRAMMAR
0000 88 $MAC_ADRMODDEF ;DEFINE ADDRESSING MODES
0000 89 $MAC_OPRDEF ;DEFINE OPERAND DESCRIPTOR BITS
```

```
0000 91 .SBTTL SYM ENTER SYMBOL INTO SYMBOL TABLE
0000 92
0000 93 .PSECT MAC$PRMSYMTAB,GBL,NOEXE,NOWRT,LONG
0000 94 .NLIST ME
0000 95 :++
0000 96 SYM -- ENTER SYMBOL INTO SYMBOL TABLE
0000 97
0000 98 THE FOLLOWING MACRO IS USED TO CREATE THE INITIAL SYMBOL TABLE.
0000 99
0000 100 FORMAT IS: SYM SYMBOL_NAME,TOKEN<,VALUE><,SEGMENT><,FLG>
0000 101
0000 102 INPUTS:
0000 103
0000 104 SYMBOL_NAME IS THE SYMSK_MAXLEN-CHARACTER OR LESS NAME
0000 105 TOKEN IS THE TOKEN TO BE ENTERED
0000 106 VALUE IS THE INITIAL VALUE
0000 107 IF NO VALUE IS GIVEN, THE DEFAULT IS 0
0000 108 SEGMENT IS THE SEGMENT TO DEFINE THE SYMBOL IN
0000 109 FLG ARE THE INITIAL FLAGS (DEFAULT IS 0)
0000 110
0000 111 :--
0000 112
0000 113 .MACRO SYM NME, TKN=0, VLE=0, SEG=0, FLG=0
0000 114 .NCHR SYMLN,<'NME> ;DETERMINE SYMBOL LENGTH
0000 115 HASHVL = SYMLN
0000 116 .IRPC HASHCH,<'NME>
0000 117 HASHVL = HASHVL + ^A/HASHCH/ ;HASH THE SYMBOL
0000 118 .ENDR
0000 119
0000 120 HASHVL = HASHVL & HASHSZ ;MASK DOWN TO HASH TABLE SIZE
0000 121
0000 122 .ASCIC /'NME/ ; Counted name string
0000 123
0000 124 ENTERSYM \HASHVL ;ENTER SYMBOL INTO TABLES
0000 125
0000 126 .LONG 0 ;LINK TO NEXT SYMBOL
0000 127 .BYTE SYMLN+1 ; Offset to name
0000 128 .LONG VLE
0000 129 .WORD FLG
0000 130 .BYTE TKN ;TOKEN VALUE
0000 131 .BYTE SEG ;SEGMENT
0000 132 .ENDM SYM
```



```

0000 134      .SBTTL  MACRO TO ENTER SYMBOL INTO LINKED LIST FROM HASH TABLE
0000 135
0000 136      :++
0000 137      :      ENTERSYM -- ENTER SYMBOL INTO LINKED LIST FROM HASH TABLE
0000 138      :
0000 139      :      INPUTS:
0000 140      :
0000 141      :      HASHNM  HASH VALUE OF SYMBOL
0000 142      :
0000 143      :      OUTPUTS:
0000 144      :
0000 145      :      SYMBOL IS LINKED INTO HASH BUCKET
0000 146      :
0000 147      :      --
0000 148
0000 149      .MACRO  ENTERSYM          HASHNM
0000 150
0000 151      .PSECT  MAC$PRMSYMTAB,GBL,NOEXE,NOWRT,LONG
0000 152
0000 153      HASHPT = .                ;SAVE CURRENT LOCATION
0000 154
0000 155      .IF EQ CS'HASHNM
0000 156      .PSECT  MAC$PHASHTAB,GBL,NOEXE,NOWRT,LONG
0000 157      .=MAC$AL PRMHSHTB        ;RELOCATE TO START OF HASH TABLE
0000 158      .=,+<HASHNM*4>          ;RELOCATE TO HASH POSITION IN HASH TABLE
0000 159      .LONG  HASHPT            ;POINT FROM HASH TABLE TO SYMBOL
0000 160      .IFF
0000 161      .=$$'HASHNM + SYM$LINK    ; Relocate to previous symbol linkage
0000 162      .LONG  HASHPT            ;POINT FROM LAST SYMBOL IN CHAIN
0000 163      .=-SYM$LINK              ; Point to base of entry
0000 164      .ENDC
0000 165
0000 166      CS'HASHNM = CS'HASHNM + 1    ;COUNT ENTRIES IN BUCKET
0000 167
0000 168      .PSECT  MAC$PRMSYMTAB,GBL,NOEXE,NOWRT,LONG
0000 169      .=HASHPT                    ;RELOCATE BACK TO END OF FREE STORAGE
0000 170      $$'HASHNM = .              ;UPDATE LINKED LIST POINTER
0000 171
0000 172      .ENDM  ENTERSYM
0000 173

```

```
0000 175 .SBTTL PERMANENT SYMBOL HASH TABLE
0000 176
0000 177 :
0000 178 : THIS CODE INITIALIZES THE PERMANENT SYMBOL TABLE WHICH CONTAINS
0000 179 : THE NAMES OF ALL DIRECTIVES AND MACHINE INSTRUCTIONS. THIS CODE
0000 180 : ALSO INITIALIZES THE VARIABLES USED BY THE ASSEMBLER TO CONSTRUCT
0000 181 : THE INITIAL HASH TABLE ENTRIES.
0000 182 :
00000000 183 .PSECT MAC$PHASHTAB,GBL,NOEXE,NOWRT,LONG
0000 184
0000 185 MAC$AL_PRMHSHTB:: ;START OF HASH TABLE
0000 186
00000000 0000 187 XXX=0 ; DUMMY COUNTER
0000 188
0000 189 .REPT HASHSZ+1
0000 190 .NLIST
0000 191 .IRP XX,\XXX
0000 192 .BLKL 1 ;ALLOCATE HASH ENTRY
0000 193 C$'XX= 0 ;CLEAR HASH INDEX
0000 194 .ENDR
0000 195 XXX=XXX+1 ;MOVE TO NEXT SYMBOL
0000 196 .LIST
0200 198
```



```

0200      200      .SBTTL  USER SYMBOL HASH TABLE
0200      201
0200      202      ::
0200      203      :: THE USER SYMBOL TABLE CONSISTS OF ALL SYMBOLS (EXCEPT MACRO NAMES)
0200      204      :: DEFINED BY THE USER.  THE CODE BELOW INITIALIZES THIS TABLE TO BE
0200      205      :: EMPTY.  (IE. EACH OF THE HASH TABLE ENTRIES ARE ZEROED.)
0200      206      ::
00000000    207      .PSECT  MAC$USERHASHTAB,NOEXE,LONG
0000      208
0000      209      MAC$AL_USYHSHTB::                                ;START OF USER HASH TABLE
0000      210
00000200    0000    211      .BLKL  HASHSZ+1                                ;ALLOCATE HASH TABLE

```

```

0200 213 .SBTTL MACRO NAME HASH TABLE
0200 214
0200 215 :
0200 216 : THE MACRO NAME TABLE CONTAINS THE NAMES OF ALL MACROS DEFINED BY
0200 217 : THE USER. THE CODE BELOW INITIALIZES THIS TABLE TO BE EMPTY.
0200 218 :
0200 219
00000000 220 .PSECT MAC$USRMACROHSH,NOEXE, LONG
0000 221
0000 222 MAC$AL_UMCHSHTB:: ;START OF MACRO NAME HASH TABLE
0000 223
00000200 0000 224 .BLKL HASHSZ+1 ;ALLOCATE HASH TABLE
0200 225

```

```
                0200 227      .SBTTL PERMANENT SYMBOLS
                0200 228
                0200 229
                0200 230
                0200 231      THE PERMANENT SYMBOLS RESIDE IN THE 'MAC$PRMSYMTAB' PSECT.
                0200 232
                0200 233
                00000000 234      .PSECT MAC$PSECT_TAB,NOEXE, LONG
                0000 235
                00000000 236      INSYP = 0                                ; START OF PSECT LIST
                0000 237
2E 20 20 53 42 41 20 20 2E 00' 0000 238      .ASCIC /. ABS ./
                09 0000
                000A 239 PSECT$MAIN::
                000A 240      .LONG 0                                ;LINK
                0A 000E 241      .BYTE 9+1                        ; Offset to name
                00000000 000F 242      .LONG 0                    ;MAX LENGTH
                0001 0013 243      .WORD SYM$M_DEF                ;SYMBOL (PSECT) FLAGS
                00 00 0015 244      .BYTE 0,0                    ;SEGMENT #0, UNUSED BYTE
                0000 0017 245      .WORD 0                        ;PSECT OPTIONS
                00000000 0019 246      .LONG 0                    ;CURRENT LOCATION COUNTER
                001D 247
2E 20 4B 4E 41 4C 42 20 2E 00' 001D 248      .ASCIC /. BLANK ./
                09 001D
                0027 249 PSECT$BLANK::
                00000000 0027 250      .LONG 0                    ;LINK
                0A 002B 251      .BYTE 9+1                        ; Offset to name
                00000000 002C 252      .LONG 0                    ;MAX LENGTH
                0001 0030 253      .WORD SYM$M_DEF                ;SYMBOL (PSECT) FLAGS
                01 00 0032 254      .BYTE 0,1                    ;UNUSED, SEGMENT # 1
                01C8 0034 255      .WORD PSC$M_DEFAULT            ;PSECT DEFAULT OPTIONS
                00000000 0036 256      .LONG 0                    ;CURRENT LOCATION COUNTER
```



```
003A 258 .SBTTL PSECT OPTION TABLE
003A 259
00000000 260 .PSECT MAC$PSC_OPTIONS,NOEXE,NOWRT,GBL,LONG
0000 261
0000 262
0000 263 : MASK DEFINITIONS
0000 264 :
0000 265
FFFF0000 0000 266 MSK_LH = ^XFFFF0000 ;MASK TO GET LH WORD ONLY
0000FFFF 0000 267 MSK_RH = ^XFFFF ;MASK TO GET RH WORD ONLY
00000010 0000 268 SHF_LH = 16 ;SHIFT COUNT TO LH WORD
80000000 0000 269 SIGN_BIT= ^X80000000 ;MASK FOR SIGN BIT
0000 270
00000000 0000 271 INSYP = 0
0000 272
0000 273 $MAC_INSERT SYX PIC - ;POSITION INDEPENDENT CODE
0000 274 <<PSC$M_PIC&MSK_RH>+<PSC$M_PIC@SHF_LH>>
000D 275 $MAC_INSERT SYX NOPIC - ;NON-PIC CODE
000D 276 <<PSC$M_NOPIC&MSK_RH>+<<<PSC$M_NOPIC\SIGN_BIT>@SHF_LH>&MSK_LH>>
001C 277 $MAC_INSERT SYX LIB - ;UNIVERSAL
001C 278 <<PSC$M_LIB&MSK_RH>+<PSC$M_LIB@SHF_LH>>
0029 279 $MAC_INSERT SYX USR - ;USER (NOT UNIVERSAL)
0029 280 <<PSC$M_USR&MSK_RH>+<<<PSC$M_USR\SIGN_BIT>@SHF_LH>&MSK_LH>>
0036 281 $MAC_INSERT SYX OVR - ;OVERLAID
0036 282 <<PSC$M_OVR&MSK_RH>+<PSC$M_OVR@SHF_LH>>
0043 283 $MAC_INSERT SYX CON - ;CONCATENATED
0043 284 <<PSC$M_CON&MSK_RH>+<<<PSC$M_CON\SIGN_BIT>@SHF_LH>&MSK_LH>>
0050 285 $MAC_INSERT SYX REL - ;RELOCATABLE
0050 286 <<PSC$M_REL&MSK_RH>+<PSC$M_REL@SHF_LH>>
005D 287 $MAC_INSERT SYX ABS - ;ABSOLUTE
005D 288 <<PSC$M_ABS&MSK_RH>+<<<PSC$M_ABS\SIGN_BIT>@SHF_LH>&MSK_LH>>
006A 289 $MAC_INSERT SYX GBL - ;GLOBAL
006A 290 <<PSC$M_GBL&MSK_RH>+<PSC$M_GBL@SHF_LH>>
0077 291 $MAC_INSERT SYX LCL - ;LOCAL
0077 292 <<PSC$M_LCL&MSK_RH>+<<<PSC$M_LCL\SIGN_BIT>@SHF_LH>&MSK_LH>>
0084 293 $MAC_INSERT SYX SHR - ;SHAREABLE
0084 294 <<PSC$M_SHR&MSK_RH>+<PSC$M_SHR@SHF_LH>>
0091 295 $MAC_INSERT SYX NOSHR - ;NON-SHAREABLE
0091 296 <<PSC$M_NOSHR&MSK_RH>+<<<PSC$M_NOSHR\SIGN_BIT>@SHF_LH>&MSK_LH>>
00A0 297 $MAC_INSERT SYX EXE - ;EXECUTABLE
00A0 298 <<PSC$M_EXE&MSK_RH>+<<PSC$M_EXE\PSC$M_RD>@SHF_LH>>
00AD 299 $MAC_INSERT SYX NOEXE - ;NON-EXECUTABLE
00AD 300 <<PSC$M_NOEXE&MSK_RH>+<<<PSC$M_NOEXE\SIGN_BIT>@SHF_LH>&MSK_LH>>
00BC 301 $MAC_INSERT SYX RD - ;READABLE
00BC 302 <<PSC$M_RD&MSK_RH>+<PSC$M_RD@SHF_LH>>
00C8 303 $MAC_INSERT SYX NORD - ;NOT READABLE
00C8 304 <<PSC$M_NORD&MSK_RH>+<<<PSC$M_NORD\SIGN_BIT>@SHF_LH>&MSK_LH>>
00D6 305 $MAC_INSERT SYX WRT - ;WRITEABLE
00D6 306 <<PSC$M_WRT&MSK_RH>+<<PSC$M_WRT\PSC$M_RD>@SHF_LH>>
00E3 307 $MAC_INSERT SYX NOWRT - ;NOT WRITEABLE
00E3 308 <<PSC$M_NOWRT&MSK_RH>+<<<PSC$M_NOWRT\SIGN_BIT>@SHF_LH>&MSK_LH>>
00F2 309 $MAC_INSERT SYX BYTE - ;BYTE ALIGNMENT
00F2 310 <<PSC$M_BYTE&MSK_RH>+<PSC$M_BYTE@SHF_LH>>
0100 311 $MAC_INSERT SYX WORD - ;WORD ALIGNMENT
0100 312 <<PSC$M_WORD&MSK_RH>+<PSC$M_WORD@SHF_LH>>
010E 313 $MAC_INSERT SYX LONG - ;LONGWORD ALIGNMENT
010E 314 <<PSC$M_LONG&MSK_RH>+<PSC$M_LONG@SHF_LH>>
```

011C	315	\$MAC_INSERT_SYX QUAD -	: QUADWORD ALIGNMENT
011C	316	<<PSC\$M_QUAD&MSK_RH>+<PSC\$M_QUAD&SHF_LH>>	
012A	317	\$MAC_INSERT_SYX PAGE -	: PAGE ALIGNMENT
012A	318	<<PSC\$M_PAGE&MSK_RH>+<PSC\$M_PAGE&SHF_LH>>	
0138	319	\$MAC_INSERT_SYX VEC -	
0138	320	<<PSC\$M_VEC&MSK_RH>+<PSC\$M_VEC&SHF_LH>>	
0145	321	\$MAC_INSERT_SYX NOVEC -	
0145	322	<<PSC\$M_NOVEC&MSK_RH>+<<<PSC\$M_NOVEC\SIGN_BIT>&SHF_LH>&MSK_LH>>>,-	
0145	323	PSC\$G_OPTIONS	

```
0154 325 .SBTTL SPECIAL MACRO DIRECTIVE SYMBOLS
0154 326
0154 327
0154 328 : THE FOLLOWING DIRECTIVES ARE TREATED SPECIAL WHEN THEY ARE ENCOUNTERED
0154 329 : WHILE SCANNING A MACRO BODY TO LOAD IT INTO MEMORY. THE ARGUMENT IS
0154 330 : THE NAME OF THE ROUTINE TO CALL.
0154 331 :
0154 332
00000000 333 .PSECT MAC$PRMSYMTAB,GBL,NOEXE,NOWRT,LONG
0000 334
00000000 0000 335 INSYMP = 0 ; START OF LIST
0000 336
0000 337 $MAC_INSERT_SYX .ERROR, MAC$SET_ALL_CHR ;.ERROR WITHIN MACRO DEF
0010 338 $MAC_INSERT_SYX .WARN, MAC$SET_ALL_CHR ;.WARN WITHIN MACRO DEF
001F 339 $MAC_INSERT_SYX .PRINT, MAC$SET_ALL_CHR ;.PRINT WITHIN MACRO DEF
002F 340 $MAC_INSERT_SYX .ASCII, MAC$SET_ALL_CHR ;.ASCII WITHIN MACRO DEF
003F 341 $MAC_INSERT_SYX .ASCIZ, MAC$SET_ALL_CHR ;.ASCIZ WITHIN MACRO DEF
004F 342 $MAC_INSERT_SYX .ASCIC, MAC$SET_ALL_CHR ;.ASCIC WITHIN MACRO DEF
005F 343 $MAC_INSERT_SYX .ASCID, MAC$SET_ALL_CHR ;.ASCID WITHIN MACRO DEF
006F 344 $MAC_INSERT_SYX .REPT, MAC$MAC_IN_MAC ;.REPT
007E 345 $MAC_INSERT_SYX .REPEAT, MAC$MAC_IN_MAC ;.REPEAT
008F 346 $MAC_INSERT_SYX .IRP, MAC$MAC_IN_MAC ;.IRP
009D 347 $MAC_INSERT_SYX .IRPC, MAC$MAC_IN_MAC ;.IRPC
00AC 348 $MAC_INSERT_SYX .ENDR, MAC$MAC_DEF_END ;.ENDR
00BB 349 $MAC_INSERT_SYX .END, MAC$MAC_DEF_END ;.END
00C9 350 $MAC_INSERT_SYX .MACRO, MAC$MAC_IN_MAC ;.MACRO
00D9 351 $MAC_INSERT_SYX .ENDM, MAC$MAC_DEF_END, -;.ENDM
00D9 352 MAC$G_SPLMC_DIR
```


00000000

```

00E8 354 .SBTTL CROSS REFERENCE QUALIFIER VALUE OPTIONS
00E8 355
00E8 356 :++
00E8 357 THE /CROSS QUALIFIER WILL TAKE THE FOLLOWING VALUES:
00E8 358
00E8 359 ALL ALL VALUES FOLLOWING
00E8 360 DIRECTIVES CREF DIRECTIVES
00E8 361 MACROS MACROS
00E8 362 OPCODES OPCODES
00E8 363 REGISTERS REGISTERS
00E8 364 SYMBOLS SYMBOLS
00E8 365
00E8 366 :--
00E8 367
00E8 368 INSIMP = 0
00E8 369
00E8 370 $MAC_INSERT_SYX ALL,-
00E8 371 CRFSM_DIR!CRFSM MACROS!CRFSM OPCODES!CRFSM REGISTERS!CRFSM SYMBOLS ;ALL OF THEM
00F5 372 $MAC_INSERT_SYX DIRECTIVES,CRFSM DIR ;DIRECTIVES
0109 373 $MAC_INSERT_SYX MACROS,CRFSM MACROS ;MACROS
0119 374 $MAC_INSERT_SYX OPCODES,CRFSM OPCODES ;OPCODES
012A 375 $MAC_INSERT_SYX REGISTERS,CRFSM REGISTERS ;REGISTERS
013D 376 $MAC_INSERT_SYX NONE,CRFSM MACROS!CRFSM SYMBOLS ;/CROSS W/NO VALUES
014B 377 $MAC_INSERT_SYX SYMBOLS,CRFSM_SYMBOLS,MAC$CRF_OPTIONS ;SYMBOLS

```

```
015C 379 .SBTTL LIST/NLIST OPTION TABLE
015C 380
00000000 381 .PSECT MAC$ENBDSABLTAB,NOEXE, LONG
0000 382
FFFFFFFF 0000 383 ENABLE = -1
00000000 0000 384 DISABLE = 0
0000 385
0000 386
0000 387 : LISTING CONTROL DIRECTIVES. THE VALUE IS THE INITIAL SWITCH SETTING
0000 388
0000 389
0000 390
0000 391
0000 392
0000 393
0000 394
00000000 0000 395 INSIMP = 0
0000 396
0000 397 $MAC_INSERT_SYM CND, ENABLE, 1, LST$G_CONDITION ; Conditional code
0011 398 :
0011 399 $MAC_INSERT_SYM MD, ENABLE, 2, LST$G_MACRODEF ; Macro definitions
0021 400 :
0021 401 $MAC_INSERT_SYM MC, ENABLE, 4, LST$G_MACROCALL ; Macro calls
0031 402 :
0031 403 $MAC_INSERT_SYM ME, DISABLE, 8, LST$G_MACROXPAN ; Macro expansions
0041 404 :
0041 405 $MAC_INSERT_SYM MEB, DISABLE, 16, LST$G_MACROBIN ; Macro binary code
0052 406 :
00000045 0052 407 LST$G_DIRLIST == LST$G_MACROBIN ; START OF TABLE
0052 408
0052 409 : LONG FORMS OF THE LISTING CONTROL DIRECTIVES. THE VALUE CONTAINED
0052 410 : IS A POINTER TO ONE OF THE ABOVE NAME BLOCKS.
0052 411 :
00000000 0052 412 INSIMP = 0
0052 413
0052 414 $MAC_INSERT_SYX NONE, 0 ; SPECIAL FOR /SHOW
0060 415 ; WITH NO VALUE
0060 416 $MAC_INSERT_SYX CONDITIONALS, LST$G_CONDITION ; CONDITIONAL CODE
0076 417 $MAC_INSERT_SYX DEFINITIONS, LST$G_MACRODEF ; MACRO DEFINITIONS
008B 418 $MAC_INSERT_SYX CALLS, LST$G_MACROCALL ; MACRO CALLS
009A 419 $MAC_INSERT_SYX EXPANSIONS, LST$G_MACROXPAN ; MACRO EXPANSIONS
00AE 420 $MAC_INSERT_SYX BINARY, LST$G_MACROBIN, - ; Macro expansions
00AE 421 LST$G_LONGNAMES
```

```
.SBTTL  ENABLE/DISABLE OPTIONS

00000000 00BE 423  :
00BE 424  :
00BE 425  :
00BE 426  :
00BE 427  :
00BE 428  :
00BE 429  :
00BE 430  :
00BE 431  :
00BE 432  :
00CF 433  :
00CF 434  :
00CF 435  :
00E0 436  :
00E0 437  :
00E0 438  :
00F1 439  :
00F1 440  :
00F1 441  :
0102 442  :
0102 443  :
0102 444  :
0113 445  :
0113 446  :
0113 447  :
0124 448  :
0124 449  :
0124 450  :
00000128 0135 451  :
0135 452  :
0135 453  :
0135 454  :
0135 455  :
0135 456  :
00000000 0135 457  :
0135 458  :
0135 459  :
0143 460  :
0143 461  :
0143 462  :
0155 463  :
0169 464  :
017E 465  :
0180 466  :
01A0 467  :
01B5 468  :
01B5 469  :
01C5 470  :
01C5 471  :
01C5 472  :
01C5 473  :
01C5 474  :
01C5 475  :
01C5 476  :
01C5 477  :
00000000 01C5 478  :
01C5 479  :
```

INSYMP = 0

\$MAC_INSERT_SYM AMA, DISABLE, 256,- ; Absolute addressing
ENB\$G_ABSADDR

\$MAC_INSERT_SYM FPT, DISABLE, 512,- ; Floating point truncation
ENB\$G_FLPTRUNC

\$MAC_INSERT_SYM LSB, DISABLE, 0,- ; Local symbol block
ENB\$G_LOCALSYMB

\$MAC_INSERT_SYM DBG, DISABLE, 2048,- ; Debugger symbol generation
ENB\$G_DEBUG

\$MAC_INSERT_SYM GBL, ENABLE, 4096,- ; Undefined to externals
ENB\$G_GLOBAL

\$MAC_INSERT_SYM TBK, ENABLE, 8192,- ; Traceback/debug info output
ENB\$G_TRACEBACK

\$MAC_INSERT_SYM SUP, DISABLE, 16384,- ; Suppress of unreferenced symbols
ENB\$G_SUPPRESS

ENB\$G_OPTIONS == ENB\$G_SUPPRESS ; START OF TABLE

LONG FORMS OF THE ENABLE OPTIONS. THE VALUE CONTAINED
IS A POINTER TO ONE OF THE ABOVE NAME BLOCKS.

INSYMP = 0

\$MAC_INSERT_SYX NONE, 0 ; SPECIAL FOR GETCMD
; (NEEDED FOR /ENABLE
; WITH NO VALUES)

\$MAC_INSERT_SYX ABSOLUTE, ENB\$G_ABSADDR ; ABSOLUTE ADDRESSING

\$MAC_INSERT_SYX TRUNCATION, ENB\$G_FLPTRUNC ; FLOATING POINT TRUNCATION

\$MAC_INSERT_SYX LOCAL_BLOCK, ENB\$G_LOCALSYMB ; LOCAL SYMBOL BLOCK

\$MAC_INSERT_SYX DEBUG, ENB\$G_DEBUG ; DEBUGGER SYMBOL GENERATION

\$MAC_INSERT_SYX TRACEBACK, ENB\$G_TRACEBACK ; DEBUG/TRACEBACK INFO

\$MAC_INSERT_SYX SUPPRESSION, ENB\$G_SUPPRESS ; SUPPRESS UNREFERENCED SYMBO

\$MAC_INSERT_SYX GLOBAL, ENB\$G_GLOBAL,- ; Undefined globals
ENB\$G_LONGNAMES

LONG FORMS OF THE DEBUG OPTIONS. THE VALUE CONTAINED IS AN INDEX USED
TO SELECTIVELY SET AND/OR CLEAR COMBINATIONS OF THE DEBUG/TRACEBACK FLAGS
SPECIFIED IN THE ENABLE/DISABLE OPTIONS TABLE ABOVE. THE CORRESPONDING
BITS IN MAC\$GL_ENLISF ARE ALSO SET/CLEARED AS REQUIRED.

INSYMP = 0


```
01C5 480 $MAC_INSERT_SYX ALL, 3 ;ENABLE BOTH DBG AND TBK
01D2 481 $MAC_INSERT_SYX TRACEBACK, 2 ;ENABLE TBK DISABLE DBG
01E5 482 $MAC_INSERT_SYX SYMBOLS, 1 ;ENABLE DBG DISABLE TBK
01F6 483 $MAC_INSERT_SYX NONE, 0.- ;DISABLE BOTH DBG AND TBK
01F6 484
0204 485
0204 486 :
0204 487 : NAMES FOR LOCAL SYMBOL BLOCK OPTION TO THE .PSECT_SAVE DIRECTIVE
0204 488 :
00000000 0204 489 INSYP = 0
0204 490
0204 491 $MAC_INSERT_SYX LSB,0 ;ALLOW 'LSB'
0211 492 $MAC_INSERT_SYX LOCAL_BLOCK,0.- ; or 'LOCAL_BLOCK'
0211 493 $MAC_INSERT_SYX MAC$G_LSNAM
```

```
0226 495      .SBTTL SYMBOLS FOR .DEFAULT DIRECTIVE
0226 496
0226 497
0226 498      : THE .DEFAULT DIRECTIVE TAKES AN ARGUMENT DESCRIBING WHAT IS
0226 499      : BEING DEFAULTED.
0226 500      :
00000000 0226 501      INSYP =      0
0226 502
0226 503      $MAC_INSERT_SYX DISPLACEMENT,0,-      : PC-displacement
0226 504      MAC$DFLT_LIST
023C 505
023C 506      :
023C 507      : THE DISPLACEMENT CAN BE 'BYTE', 'WORD', OR 'LONG'
023C 508      : THE VALUE IS THE INDEX (1-3) INTO A TABLE.
023C 509      :
00000000 023C 510      INSYP =      0
023C 511      $MAC_INSERT_SYX LONG,      3      : LONGWORD--4 BYTES
024A 512      $MAC_INSERT_SYX WORD,      2      : WORD--2 BYTES
0258 513      $MAC_INSERT_SYX BYTE,      1,MAC$DSPL_ARGS : BYTE--1 BYTE
```

```
0266 515 .SBTTL OPCODE DEFINITIONS
0266 516
0266 517 :
0266 518 :
0266 519 OPCODE DEFINITIONS
0266 520
0266 521 :
0266 522 :
0266 523 THE FOLLOWING MACRO IS USED TO DEFINE THE STAR OPCODE SET. THE
0266 524 CALLING FORMAT IS:
0266 525
0266 526 OPDEF NAME,OPCODE,<ARG1,ARG2,....>
0266 527
0266 528 WHERE 'NAME' IS THE NAME OF THE MACHINE INSTRUCTION, 'OPCODE' IS
0266 529 THE VALUE OF THE OPCODE (POSSIBLY 2 BYTES), AND 'ARG(N)'
0266 530 ARE THE N'TH OPERAND DESCRIPTORS. 'ARG(N)' CONSISTS OF ONE BYTE WITH
0266 531 THE LOWER 4 BITS CONTAINING THE WIDTH (IN BYTES) OF THE OPERAND, AND THE
0266 532 UPPER 4 BYTS CONTAINING FLAGS DESCRIBING THE OPERAND TYPE.;
0266 533 :
0266 534
0266 535 .MACRO OPDEF NME,CODE,ARGS ;NAME, OPCODE, <MODE1,ARG1,....>
0266 536
0266 537 $COUNT = 0 ;FIRST COUNT THE OPERANDS
0266 538 .IRP X,<ARGS>
0266 539 $COUNT = $COUNT + 1
0266 540 .ENDM
0266 541 SYM NME,DOPCODE,CODE,\$COUNT
0266 542
0266 543 .IRP X,<ARGS> ;FILL IN OPERAND DESCRIPTORS
0266 544 .WORD X
0266 545 .ENDR
0266 546 .ENDM OPDEF
```



```
0266 548 :  
0266 549 : TABLE OF ILLEGAL ADDRESSING MODES  
0266 550 : A BIT IS SET FOR EACH ILLEGAL MODE FOR EACH OPERAND ACCESS TYPE  
0266 551 :  
0266 552 .MACRO ILL_MOD ARG1  
0266 553 Z=0  
0266 554 .IRP DARG,<ARG1>  
0266 555 .IF NB DARG  
0266 556 Z=Z+1@<ADMS_'DARG'>  
0266 557 .ENDC  
0266 558 .ENDR  
0266 559 .WORD Z  
0266 560 .ENDM  
0266 561  
0266 562  
0000 015C 563 .PSECT MAC$PRMSYMTAB,GBL,NOEXE,NOWRT,LONG  
015C 564  
015C 565 MAC$AW_ILLMODTB::  
0000 015C 566 ILL_MOD <LITERAL,REGISTER> ;ADDRESS  
015E 567 .WORD 0 ;READ  
0160 568 ILL_MOD <LITERAL,IMMEDIATE> ;MODIFY  
0162 569 ILL_MOD <LITERAL,IMMEDIATE> ;WRITE  
0164 570 ILL_MOD <LITERAL> ;FIELD  
0166 571 ILL_MOD <LITERAL,IMMEDIATE,ABSOLUTE,PIC,- ;BRANCH BYTE  
0166 572 INDEX,REGISTER,RRIND,REGAUTODEC,-  
0166 573 REGAUTOINC,DFRAUTOINC,DFBYTEDISP,-  
0166 574 DFLORDDISP,DFLONGDISP>  
0168 575 ILL_MOD <LITERAL,IMMEDIATE,ABSOLUTE,PIC,- ;BRANCH WORD  
0168 576 INDEX,REGISTER,RRIND,REGAUTODEC,-  
0168 577 REGAUTOINC,DFRAUTOINC,DFBYTEDISP,-  
0168 578 DFWORDDISP,DFLONGDISP>
```

000000A1 000000C2

NOTE: ALL OPCODE VALUES ARE IN HEXADECIMAL

:DEFINE BRANCH BYTE
:DEFINE BRANCH WORD

016A	580	::++								
016A	581	::								
016A	582	::--								
016A	583									
016A	584	BB==OPDSM_BB								
016A	585	BW==OPDSM_BW								
016A	586									
016A	587	OPDEF HALT	<<<0>>>							
017C	588	OPDEF NOP	<<<1>>>							
018D	589	OPDEF REI	<<<2>>>							
019E	590	OPDEF BPT	<<<3>>>							
01AF	591	OPDEF RET	<<<4>>>							
01C0	592	OPDEF RSB	<<<5>>>							
01D1	593	OPDEF LDPCTX	<<<6>>>							
01E5	594	OPDEF SVPCTX	<<<7>>>							
01F9	595									
01F9	596	OPDEF CVTPS	<<<^X8>>>	<RW	AB	RW	AB>			
0214	597	OPDEF CVTSP	<<<^X9>>>	<RW	AB	RW	AB>			
022F	598	OPDEF INDEX	<<<^XA>>>	<RL	RL	RL	RL	RL	WL>	
024E	599	OPDEF CRC	<<<^XB>>>	<AB	RL	RW	AB>			
0267	600	OPDEF PROBER	<<<^XC>>>	<RB	RW	AB>				
0281	601	OPDEF PROBEW	<<<^XD>>>	<RB	RW	AB>				
029B	602	OPDEF INSQUE	<<<^XE>>>	<AB	AB>					
02B3	603	OPDEF REMQUE	<<<^XF>>>	<AB	WL>					
02CB	604									
02CB	605	OPDEF BSBB	<<<^X10>>>	BB						
02DF	606	OPDEF BSB	<<<^X10>>>	BB						
02F2	607	OPDEF BRB	<<<^X11>>>	BB						
0305	608	OPDEF BNEQ	<<<^X12>>>	BB						
0319	609	OPDEF BNEQU	<<<^X12>>>	BB						
032E	610	OPDEF BEQL	<<<^X13>>>	BB						
0342	611	OPDEF BEQLU	<<<^X13>>>	BB						
0357	612	OPDEF BGTR	<<<^X14>>>	BB						
036B	613	OPDEF BLEQ	<<<^X15>>>	BB						
037F	614	OPDEF JSB	<<<^X16>>>	AB						
0392	615	OPDEF JMP	<<<^X17>>>	AB						
03A5	616									
03A5	617	OPDEF BGEQ	<<<^X18>>>	BB						
03B9	618	OPDEF BLSS	<<<^X19>>>	BB						
03CD	619	OPDEF BGTRU	<<<^X1A>>>	BB						
03E2	620	OPDEF BLEQU	<<<^X1B>>>	BB						
03F7	621	OPDEF BVC	<<<^X1C>>>	BB						
040A	622	OPDEF BVS	<<<^X1D>>>	BB						
041D	623	OPDEF BGEQU	<<<^X1E>>>	BB						
0432	624	OPDEF BCC	<<<^X1E>>>	BB						
0445	625	OPDEF BLSSU	<<<^X1F>>>	BB						
045A	626	OPDEF BCS	<<<^X1F>>>	BB						
046D	627									
046D	628	OPDEF ADDP4	<<<^X20>>>	<RW	AB	RW	AB>			
0488	629	OPDEF ADDP	<<<^X20>>>	<RW	AB	RW	AB>			
04A2	630	OPDEF ADDP6	<<<^X21>>>	<RW	AB	RW	AB>	RW	AB>	
04C1	631	OPDEF SUBP4	<<<^X22>>>	<RW	AB	RW	AB>			
04DC	632	OPDEF SUBP	<<<^X22>>>	<RW	AB	RW	AB>			
04F6	633	OPDEF SUBP6	<<<^X23>>>	<RW	AB	RW	AB>	RW	AB>	
0515	634	OPDEF CVTPT	<<<^X24>>>	<RW	AB	AB	RW	AB>		
0532	635	OPDEF MULP	<<<^X25>>>	<RW	AB	RW	AB	RW	AB>	
0550	636	OPDEF CVTTP	<<<^X26>>>	<RW	AB	AB	RW	AB>		

PERMANENT SYMBOL TABLE OPCODE DEFINITIONS

F 12

16-SEP-1984 01:54:17
5-SEP-1984 01:49:57

VAX/VMS Macro V04-00
[MACRO.SRC]SYMTAB.MAR;1

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```
056D 637 OPDEF DIVP <<<^X27>>> <RW AB RW AB RW AB>
```

SECRET

058B	639	OPDEF	MOV C3	<<<^X28>>>	<RW	AB	AB>			
05A4	640	OPDEF	MOV C	<<<^X28>>>	<RW	AB	AB>			
05BC	641	OPDEF	CMPC3	<<<^X29>>>	<RW	AB	AB>			
05D5	642	OPDEF	CMPC	<<<^X29>>>	<RW	AB	AB>			
05ED	643	OPDEF	SCANC	<<<^X2A>>>	<RW	AB	AB>	RB>		
0608	644	OPDEF	SPANC	<<<^X2B>>>	<RW	AB	AB>	RB>		
0623	645	OPDEF	MOV C5	<<<^X2C>>>	<RW	AB	RB	RW	AB>	
0640	646	OPDEF	CMPC5	<<<^X2D>>>	<RW	AB	RB	RW	AB>	
065D	647	OPDEF	MOVTC	<<<^X2E>>>	<RW	AB	RB	AB	RW	AB>
067C	648	OPDEF	MOVTUC	<<<^X2F>>>	<RW	AB	RB	AB	RW	AB>
069C	649									
069C	650	OPDEF	BSBW	<<<^X30>>>	BW					
0680	651	OPDEF	BRW	<<<^X31>>>	BW					
06C3	652	OPDEF	BR	<<<^X31>>>	BW					
06C3	653	OPDEF	CVTWL	<<<^X32>>>	<RW	WL>				
06DA	654	OPDEF	CVTWB	<<<^X33>>>	<RW	WB>				
06F1	655	OPDEF	MOV P	<<<^X34>>>	<RW	AB	AB>			
0709	656	OPDEF	CMPP3	<<<^X35>>>	<RW	AB	AB>			
0722	657	OPDEF	CMPP	<<<^X35>>>	<RW	AB	AB>			
073A	658	OPDEF	CVTPL	<<<^X36>>>	<RW	AB	WL>			
0753	659	OPDEF	CMPP4	<<<^X37>>>	<RW	AB	RW	AB>		
076E	660									
076E	661	OPDEF	EDITPC	<<<^X38>>>	<RW	AB	AB	AB>		
078A	662	OPDEF	MATCHC	<<<^X39>>>	<RW	AB	RW	AB>		
07A6	663	OPDEF	LOCC	<<<^X3A>>>	<RB	RW	AB>			
07BE	664	OPDEF	SKPC	<<<^X3B>>>	<RB	RW	AB>			
07D6	665	OPDEF	MOVZWL	<<<^X3C>>>	<RW	WL>				
07EE	666	OPDEF	ACBW	<<<^X3D>>>	<RW	RW	MW	BW>		
0808	667	OPDEF	MOVAW	<<<^X3E>>>	<AW	WL>				
081F	668	OPDEF	PUSHAW	<<<^X3F>>>	AW					
0835	669									
0835	670									
0835	671	OPDEF	ADDF2	<<<^X40>>>	<RF	MF>				
084C	672	OPDEF	ADDF	<<<^X40>>>	<RF	MF>				
0862	673	OPDEF	ADDF3	<<<^X41>>>	<RF	RF	WF>			
087B	674	OPDEF	SUBF2	<<<^X42>>>	<RF	MF>				
0892	675	OPDEF	SUBF	<<<^X42>>>	<RF	MF>				
08A8	676	OPDEF	SUBF3	<<<^X43>>>	<RF	RF	WF>			
08C1	677	OPDEF	MULF2	<<<^X44>>>	<RF	MF>				
08D8	678	OPDEF	MULF	<<<^X44>>>	<RF	MF>				
08EE	679	OPDEF	MULF3	<<<^X45>>>	<RF	RF	WF>			
0907	680	OPDEF	DIVF2	<<<^X46>>>	<RF	MF>				
091E	681	OPDEF	DIVF	<<<^X46>>>	<RF	MF>				
0934	682	OPDEF	DIVF3	<<<^X47>>>	<RF	RF	WF>			
094D	683									
094D	684	OPDEF	CVTFB	<<<^X48>>>	<RF	WB>				
0964	685	OPDEF	CVTFW	<<<^X49>>>	<RF	WW>				
097B	686	OPDEF	CVTFL	<<<^X4A>>>	<RF	WL>				
0992	687	OPDEF	CVTRFL	<<<^X4B>>>	<RF	WL>				
09AA	688	OPDEF	CVTBF	<<<^X4C>>>	<RB	WF>				
09C1	689	OPDEF	CVTWF	<<<^X4D>>>	<RW	WF>				
09D8	690	OPDEF	CVTLF	<<<^X4E>>>	<RL	WF>				
09EF	691	OPDEF	ACBF	<<<^X4F>>>	<RF	RF	MF	BW>		

0A09	693	OPDEF	MOVF	<<<^X50>>>	<RF	WF>			
0A1F	694	OPDEF	CMPF	<<<^X51>>>	<RF	RF>			
0A35	695	OPDEF	MNEGF	<<<^X52>>>	<RF	WF>			
0A4C	696	OPDEF	TSTF	<<<^X53>>>	RF				
0A60	697	OPDEF	EMODF	<<<^X54>>>	<RF	RB	RF	WL	WF>
0A7D	698	OPDEF	POLYF	<<<^X55>>>	<RF	RW	AB>		
0A96	699	OPDEF	CVTFD	<<<^X56>>>	<RF	WD>			
0AAD	700	:	RESERVED	57					
0AAD	701	:							
0AAD	702	OPDEF	ADAWI	<<<^X58>>>	<RW	MW>			
0AC4	703	:	RESERVED	59					
0AC4	704	:	RESERVED	5A					
0AC4	705	:	RESERVED	5B					
0AC4	706	OPDEF	INSQHI	<<<^X5C>>>	<AB	AQ>			
0ADC	707	OPDEF	INSQT!	<<<^X5D>>>	<AB	AQ>			
0AF4	708	OPDEF	REMQHI	<<<^X5E>>>	<AQ	WL>			
0B0C	709	OPDEF	REMQTI	<<<^X5F>>>	<AQ	WL>			
0B24	710	:							
0B24	711	OPDEF	ADDD2	<<<^X60>>>	<RD	MD>			
0B3B	712	OPDEF	ADDD	<<<^X60>>>	<RD	MD>			
0B51	713	OPDEF	ADDD3	<<<^X61>>>	<RD	RD	WD>		
0B6A	714	OPDEF	SUBD2	<<<^X62>>>	<RD	MD>			
0B81	715	OPDEF	SUBD	<<<^X62>>>	<RD	MD>			
0B97	716	OPDEF	SUBD3	<<<^X63>>>	<RD	RD	WD>		
0B80	717	OPDEF	MULD2	<<<^X64>>>	<RD	MD>			
0BC7	718	OPDEF	MULD	<<<^X64>>>	<RD	MD>			
0BDD	719	OPDEF	MULD3	<<<^X65>>>	<RD	RD	WD>		
0BF6	720	OPDEF	DIVD2	<<<^X66>>>	<RD	MD>			
0C0D	721	OPDEF	DIVD	<<<^X66>>>	<RD	MD>			
0C23	722	OPDEF	DIVD3	<<<^X67>>>	<RD	RD	WD>		
0C3C	723	:							
0C3C	724	OPDEF	CVTDB	<<<^X68>>>	<RD	WB>			
0C53	725	OPDEF	CVTDW	<<<^X69>>>	<RD	WW>			
0C6A	726	OPDEF	CVTDL	<<<^X6A>>>	<RD	WL>			
0C81	727	OPDEF	CVTRDL	<<<^X6B>>>	<RD	WL>			
0C99	728	OPDEF	CVTBD	<<<^X6C>>>	<RB	WD>			
0CB0	729	OPDEF	CVTWD	<<<^X6D>>>	<RW	WD>			
0CC7	730	OPDEF	CVTLD	<<<^X6E>>>	<RL	WD>			
0CDE	731	OPDEF	ACBD	<<<^X6F>>>	<RD	RD	MD	BW>	
0CF8	732	:							
0CF8	733	OPDEF	MOVD	<<<^X70>>>	<RD	WD>			
0DOE	734	OPDEF	CMPO	<<<^X71>>>	<RD	RD>			
0D24	735	OPDEF	MNEGD	<<<^X72>>>	<RD	WD>			
0D3B	736	OPDEF	TSTD	<<<^X73>>>	RD				
0D4F	737	OPDEF	EMODD	<<<^X74>>>	<RD	RB	RD	WL	WD>
0D6C	738	OPDEF	POLYD	<<<^X75>>>	<RD	RW	AB>		
0D85	739	OPDEF	CVTDF	<<<^X76>>>	<RD	WF>			
0D9C	740	:	RESERVED	77					

0D9C	742	OPDEF	ASHL	<<<^X78>>>	<RB	RL	WL>	
0DB4	743	OPDEF	ASHQ	<<<^X79>>>	<RB	RQ	WQ>	
0DCC	744	OPDEF	EMUL	<<<^X7A>>>	<RL	RL	RL	WQ>
0DE6	745	OPDEF	EDIV	<<<^X7B>>>	<RL	RQ	WL	WL>
0E00	746	OPDEF	CLRQ	<<<^X7C>>>	WQ			
0E14	747	OPDEF	CLRD	<<<^X7C>>>	WD			
0E28	748	OPDEF	CLRG	<<<^X7C>>>	WG			
0E3C	749	OPDEF	MOVQ	<<<^X7D>>>	<RQ	WQ>		
0E52	750	OPDEF	MOVAQ	<<<^X7E>>>	<AQ	WL>		
0E69	751	OPDEF	MOVAD	<<<^X7E>>>	<AD	WL>		
0E80	752	OPDEF	MOVAG	<<<^X7E>>>	<AG	WL>		
0E97	753	OPDEF	PUSHAQ	<<<^X7F>>>	AQ			
0EAD	754	OPDEF	PUSHAD	<<<^X7F>>>	AD			
0EC3	755	OPDEF	PUSHAG	<<<^X7F>>>	AG			
0ED9	756							
0ED9	757	OPDEF	ADDB2	<<<^X80>>>	<RB	MB>		
0EF0	758	OPDEF	ADDB	<<<^X80>>>	<RB	MB>		
0F06	759	OPDEF	ADDB3	<<<^X81>>>	<RB	RB	WB>	
0F1F	760	OPDEF	SUBB2	<<<^X82>>>	<RB	MB>		
0F36	761	OPDEF	SUBB	<<<^X82>>>	<RB	MB>		
0F4C	762	OPDEF	SUBB3	<<<^X83>>>	<RB	RB	WB>	
0F65	763	OPDEF	MULB2	<<<^X84>>>	<RB	MB>		
0F7C	764	OPDEF	MULB	<<<^X84>>>	<RB	MB>		
0F92	765	OPDEF	MULB3	<<<^X85>>>	<RB	RB	WB>	
0FAB	766	OPDEF	DIVB2	<<<^X86>>>	<RB	MB>		
0FC2	767	OPDEF	DIVB	<<<^X86>>>	<RB	MB>		
0FD8	768	OPDEF	DIVB3	<<<^X87>>>	<RB	RB	WB>	
0FF1	769							
0FF1	770	OPDEF	BISB2	<<<^X88>>>	<RB	MB>		
1008	771	OPDEF	BISB	<<<^X88>>>	<RB	MB>		
101E	772	OPDEF	BISB3	<<<^X89>>>	<RB	RB	WB>	
1037	773	OPDEF	BICB2	<<<^X8A>>>	<RB	MB>		
104E	774	OPDEF	BICB	<<<^X8A>>>	<RB	MB>		
1064	775	OPDEF	BICB3	<<<^X8B>>>	<RB	RB	WB>	
107D	776	OPDEF	XORB2	<<<^X8C>>>	<RB	MB>		
1094	777	OPDEF	XORB	<<<^X8C>>>	<RB	MB>		
10AA	778	OPDEF	XORB3	<<<^X8D>>>	<RB	RB	WB>	
10C3	779	OPDEF	MNEGB	<<<^X8E>>>	<RB	WB>		
10DA	780	OPDEF	CASEB	<<<^X8F>>>	<RB	RB	RB>	
10F3	781							
10F3	782	OPDEF	MOVB	<<<^X90>>>	<RB	WB>		
1109	783	OPDEF	CMPB	<<<^X91>>>	<RB	RB>		
111F	784	OPDEF	MCOMB	<<<^X92>>>	<RB	WB>		
1136	785	OPDEF	BITB	<<<^X93>>>	<RB	RB>		
114C	786	OPDEF	CLRB	<<<^X94>>>	WB			
1160	787	OPDEF	TSTB	<<<^X95>>>	RB			
1174	788	OPDEF	INCB	<<<^X96>>>	MB			
1188	789	OPDEF	DECB	<<<^X97>>>	MB			
119C	790							
119C	791	OPDEF	CVTBL	<<<^X98>>>	<RB	WL>		
11B3	792	OPDEF	CVTBW	<<<^X99>>>	<RB	WW>		
11CA	793	OPDEF	MOVZBL	<<<^X9A>>>	<RB	WL>		
11E2	794	OPDEF	MOVZBW	<<<^X9B>>>	<RB	WW>		
11FA	795	OPDEF	ROTL	<<<^X9C>>>	<RB	RL	RL>	
1212	796	OPDEF	ACBB	<<<^X9D>>>	<RB	RB	MB	BW>
122C	797	OPDEF	MOVAB	<<<^X9E>>>	<AB	WL>		
1243	798	OPDEF	PUSHAB	<<<^X9F>>>	AB			

1259	800	OPDEF	ADDW2	<<<^XA0>>>	<RW	MW>	
1270	801	OPDEF	ADDW	<<<^XA0>>>	<RW	MW>	
1286	802	OPDEF	ADDW3	<<<^XA1>>>	<RW	RW	WW>
129F	803	OPDEF	SUBW2	<<<^XA2>>>	<RW	MW>	
12B6	804	OPDEF	SUBW	<<<^XA2>>>	<RW	MW>	
12CC	805	OPDEF	SUBW3	<<<^XA3>>>	<RW	RW	WW>
12E5	806	OPDEF	MULW2	<<<^XA4>>>	<RW	MW>	
12FC	807	OPDEF	MULW	<<<^XA4>>>	<RW	MW>	
1312	808	OPDEF	MULW3	<<<^XA5>>>	<RW	RW	WW>
132B	809	OPDEF	DIVW2	<<<^XA6>>>	<RW	MW>	
1342	810	OPDEF	DIVW	<<<^XA6>>>	<RW	MW>	
1358	811	OPDEF	DIVW3	<<<^XA7>>>	<RW	RW	WW>
1371	812						
1371	813	OPDEF	BISW2	<<<^XA8>>>	<RW	MW>	
1388	814	OPDEF	BISW	<<<^XA8>>>	<RW	MW>	
139E	815	OPDEF	BISW3	<<<^XA9>>>	<RW	RW	WW>
13B7	816	OPDEF	BICW2	<<<^XAA>>>	<RW	MW>	
13CE	817	OPDEF	BICW	<<<^XAA>>>	<RW	MW>	
13E4	818	OPDEF	BICW3	<<<^XAB>>>	<RW	RW	WW>
13FD	819	OPDEF	XORW2	<<<^XAC>>>	<RW	MW>	
1414	820	OPDEF	XORW	<<<^XAC>>>	<RW	MW>	
142A	821	OPDEF	XORW3	<<<^XAD>>>	<RW	RW	WW>
1443	822	OPDEF	MNEGW	<<<^XAE>>>	<RW	WW>	
145A	823	OPDEF	CASEW	<<<^XAF>>>	<RW	RW	RW>
1473	824						
1473	825	OPDEF	MOVW	<<<^XB0>>>	<RW	WW>	
1489	826	OPDEF	CMPW	<<<^XB1>>>	<RW	RW>	
149F	827	OPDEF	MCOMW	<<<^XB2>>>	<RW	WW>	
14B6	828	OPDEF	BITW	<<<^XB3>>>	<RW	RW>	
14CC	829	OPDEF	CLRW	<<<^XB4>>>	WW		
14E0	830	OPDEF	TSTW	<<<^XB5>>>	RW		
14F4	831	OPDEF	INCW	<<<^XB6>>>	MW		
1508	832	OPDEF	DECW	<<<^XB7>>>	MW		
151C	833						
151C	834	OPDEF	BISPSW	<<<^XB8>>>	RW		
1532	835	OPDEF	BICPSW	<<<^XB9>>>	RW		
1548	836	OPDEF	POPR	<<<^XBA>>>	RW		
155C	837	OPDEF	PUSHR	<<<^XBB>>>	RW		
1571	838	OPDEF	CHMK	<<<^XBC>>>	RW		
1585	839	OPDEF	CHME	<<<^XBD>>>	RW		
1599	840	OPDEF	CHMS	<<<^XBE>>>	RW		
15AD	841	OPDEF	CHMU	<<<^XBF>>>	RW		
15C1	842						
15C1	843	OPDEF	ADDL2	<<<^XC0>>>	<RL	ML>	
15D8	844	OPDEF	ADDL	<<<^XC0>>>	<RL	ML>	
15EE	845	OPDEF	ADDL3	<<<^XC1>>>	<RL	RL	WL>
1607	846	OPDEF	SUBL2	<<<^XC2>>>	<RL	ML>	
161E	847	OPDEF	SUBL	<<<^XC2>>>	<RL	ML>	
1634	848	OPDEF	SUBL3	<<<^XC3>>>	<RL	RL	WL>
164D	849	OPDEF	MULL2	<<<^XC4>>>	<RL	ML>	
1664	850	OPDEF	MULL	<<<^XC4>>>	<RL	ML>	
167A	851	OPDEF	MULL3	<<<^XC5>>>	<RL	RL	WL>
1693	852	OPDEF	DIVL2	<<<^XC6>>>	<RL	ML>	
16AA	853	OPDEF	DIVL	<<<^XC6>>>	<RL	ML>	
16C0	854	OPDEF	DIVL3	<<<^XC7>>>	<RL	RL	WL>

16D9	856	OPDEF	BISL2	<<<^XC8>>>	<RL	ML>		
16F0	857	OPDEF	BISL	<<<^XC8>>>	<RL	ML>		
1706	858	OPDEF	BISL3	<<<^XC9>>>	<RL	RL	WL>	
171F	859	OPDEF	BICL2	<<<^XCA>>>	<RL	ML>		
1736	860	OPDEF	BICL	<<<^XCA>>>	<RL	ML>		
174C	861	OPDEF	BICL3	<<<^XCB>>>	<RL	RL	WL>	
1765	862	OPDEF	XORL2	<<<^XCC>>>	<RL	ML>		
177C	863	OPDEF	XORL	<<<^XCC>>>	<RL	ML>		
1792	864	OPDEF	XORL3	<<<^XCD>>>	<RL	RL	WL>	
17AB	865	OPDEF	MNEGL	<<<^XCE>>>	<RL	WL>		
17C2	866	OPDEF	CASEL	<<<^XCF>>>	<RL	RL	RL>	
17DB	867							
17DB	868	OPDEF	MOVL	<<<^XD0>>>	<RL	WL>		
17F1	869	OPDEF	CMPL	<<<^XD1>>>	<RL	RL>		
1807	870	OPDEF	MCOML	<<<^XD2>>>	<RL	WL>		
181E	871	OPDEF	BITL	<<<^XD3>>>	<RL	RL>		
1834	872	OPDEF	CLRL	<<<^XD4>>>	WL			
1848	873	OPDEF	CLRF	<<<^XD4>>>	WF			
185C	874	OPDEF	TSTL	<<<^XD5>>>	RL			
1870	875	OPDEF	INCL	<<<^XD6>>>	ML			
1884	876	OPDEF	DECL	<<<^XD7>>>	ML			
1898	877							
1898	878	OPDEF	ADWC	<<<^XD8>>>	<RL	ML>		
18AE	879	OPDEF	SBWC	<<<^XD9>>>	<RL	ML>		
18C4	880	OPDEF	MTPR	<<<^XDA>>>	<RL	RL>		
18DA	881	OPDEF	MFPR	<<<^XDB>>>	<RL	WL>		
18F0	882	OPDEF	MOVPSL	<<<^XDC>>>	WL			
1906	883	OPDEF	PUSHL	<<<^XDD>>>	RL			
191B	884	OPDEF	POPL	<<<^XDED0>>>	WL			
192F	885	OPDEF	MOVAL	<<<^XDE>>>	<AL	WL>		
1946	886	OPDEF	MOVAF	<<<^XDE>>>	<AF	WL>		
195D	887	OPDEF	PUSHAL	<<<^XDF>>>	AL			
1973	888	OPDEF	PUSHAF	<<<^XDF>>>	AF			
1989	889							
1989	890	OPDEF	BBS	<<<^XE0>>>	<RL	VB	BB>	
19A0	891	OPDEF	BBC	<<<^XE1>>>	<RL	VB	BB>	
19B7	892	OPDEF	BBSS	<<<^XE2>>>	<RL	VB	BB>	
19CF	893	OPDEF	BBCS	<<<^XE3>>>	<RL	VB	BB>	
19E7	894	OPDEF	BBSC	<<<^XE4>>>	<RL	VB	BB>	
19FF	895	OPDEF	BBCC	<<<^XE5>>>	<RL	VB	BB>	
1A17	896	OPDEF	BBSSI	<<<^XE6>>>	<RL	VB	BB>	
1A30	897	OPDEF	BBCCI	<<<^XE7>>>	<RL	VB	BB>	
1A49	898							
1A49	899	OPDEF	BLBS	<<<^XE8>>>	<RL	BB>		
1A5F	900	OPDEF	BLBC	<<<^XE9>>>	<RL	BB>		
1A75	901	OPDEF	FFS	<<<^XEA>>>	<RL	RB	VB	WL>
1A8E	902	OPDEF	FFC	<<<^XEB>>>	<RL	RB	VB	WL>
1AA7	903	OPDEF	CMPI	<<<^XEC>>>	<RL	RB	VB	RL>
1AC1	904	OPDEF	CMPIV	<<<^XED>>>	<RL	RB	VB	RL>
1ADC	905	OPDEF	EXTV	<<<^XEE>>>	<RL	RB	VB	WL>
1AF6	906	OPDEF	EXTZV	<<<^XEF>>>	<RL	RB	VB	WL>

1B11	908	OPDEF	INSV	<<<^XF0>>>	<RL	RL	RB	VB>		
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1B45	910	OPDEF	AOBLSS	<<<^XF2>>>	<RL	ML	BB>			
1B5F	911	OPDEF	AOBLEQ	<<<^XF3>>>	<RL	ML	BB>			
1B79	912	OPDEF	SOBGEQ	<<<^XF4>>>	<ML	BB>				
1B91	913	OPDEF	SOBGTR	<<<^XF5>>>	<ML	BB>				
1BA9	914	OPDEF	CVTLB	<<<^XF6>>>	<RL	WB>				
1BC0	915	OPDEF	CVTLW	<<<^XF7>>>	<RL	WW>				
1BD7	916									
1BD7	917	OPDEF	ASHP	<<<^XF8>>>	<RB	RW	AB	RB	RW	AB>
1BF5	918	OPDEF	CVTLP	<<<^XF9>>>	<RL	RW	AB>			
1C0E	919	OPDEF	CALLG	<<<^XFA>>>	<AB	AB>				
1C25	920	OPDEF	CALLS	<<<^XFB>>>	<RL	AB>				
1C3C	921	OPDEF	XFC	<<<^XFC>>>						
1C4D	922	OPDEF	ESCD	<<<^XFD>>>	:	RESERVED				
1C5F	923	OPDEF	ESCE	<<<^XFE>>>	:	RESERVED				
1C71	924	OPDEF	ESCF	<<<^XFF>>>	:	RESERVED				
1C83	925	OPDEF	BUGW	<<<^XFEFF>>>						
1C95	926	OPDEF	BUGL	<<<^XFDFF>>>						
1CA7	927	OPDEF	CVTDH	<<<^X32FD>>>	<RD	WH>				
1CBE	928	OPDEF	CVTGF	<<<^X33FD>>>	<RG	WF>				
1CD5	929	OPDEF	ADDG2	<<<^X40FD>>>	<RG	MG>				
1CEC	930	OPDEF	ADDG3	<<<^X41FD>>>	<RG	RG	WG>			
1D05	931	OPDEF	SUBG2	<<<^X42FD>>>	<RG	MG>				
1D1C	932	OPDEF	SUBG3	<<<^X43FD>>>	<RG	RG	MG>			
1D35	933	OPDEF	MULG2	<<<^X44FD>>>	<RG	MG>				
1D4C	934	OPDEF	MULG3	<<<^X45FD>>>	<RG	RG	WG>			
1D65	935	OPDEF	DIVG2	<<<^X46FD>>>	<RG	MG>				
1D7C	936	OPDEF	DIVG3	<<<^X47FD>>>	<RG	RG	WG>			
1D95	937	OPDEF	ADDH2	<<<^X60FD>>>	<RH	MH>				
1DAC	938	OPDEF	ADDH3	<<<^X61FD>>>	<RH	RH	WH>			
1DC5	939	OPDEF	SUBH2	<<<^X62FD>>>	<RH	MH>				
1DDC	940	OPDEF	SUBH3	<<<^X63FD>>>	<RH	RH	WH>			
1DF5	941	OPDEF	MULH2	<<<^X64FD>>>	<RH	MH>				
1E0C	942	OPDEF	MULH3	<<<^X65FD>>>	<RH	RH	WH>			
1E25	943	OPDEF	DIVH2	<<<^X66FD>>>	<RH	MH>				
1E3C	944	OPDEF	DIVH3	<<<^X67FD>>>	<RH	RH	WH>			
1E55	945	OPDEF	CVTGB	<<<^X48FD>>>	<RG	WB>				
1E6C	946	OPDEF	CVTGW	<<<^X49FD>>>	<RG	WW>				
1E83	947	OPDEF	CVTGL	<<<^X4AFD>>>	<RG	WL>				
1E9A	948	OPDEF	CVTRGL	<<<^X4BFD>>>	<RG	WL>				
1EB2	949	OPDEF	CVTBG	<<<^X4CFD>>>	<RB	WG>				
1EC9	950	OPDEF	CVTWG	<<<^X4DFD>>>	<RW	WG>				
1EE0	951	OPDEF	CVTLG	<<<^X4EFD>>>	<RL	WG>				
1EF7	952	OPDEF	ACBG	<<<^X4FFD>>>	<RG	RG	MG	BW>		
1F11	953	OPDEF	CVTHB	<<<^X68FD>>>	<RH	WB>				
1F28	954	OPDEF	CVTHW	<<<^X69FD>>>	<RH	WW>				
1F3F	955	OPDEF	CVTHL	<<<^X6AFD>>>	<RH	WL>				
1F56	956	OPDEF	CVTRHL	<<<^X6BFD>>>	<RH	WL>				
1F6E	957	OPDEF	CVTBH	<<<^X6CFD>>>	<RB	WH>				
1F85	958	OPDEF	CVTWH	<<<^X6DFD>>>	<RW	WH>				
1F9C	959	OPDEF	CVTLH	<<<^X6EFD>>>	<RL	WH>				
1FB3	960	OPDEF	ACBH	<<<^X6FFD>>>	<RH	RH	MH	BW>		
1FCD	961	OPDEF	MOVG	<<<^X50FD>>>	<RG	WG>				
1FE3	962	OPDEF	CMPG	<<<^X51FD>>>	<RG	RG>				
1FF9	963	OPDEF	MNEGG	<<<^X52FD>>>	<RG	WG>				
2010	964	OPDEF	TSTG	<<<^X53FD>>>	RG					

PERMANENT SYMBOL TABLE
OPCODE DEFINITIONS

M 12

16-SEP-1984 01:54:17
5-SEP-1984 01:49:57

VAX/VMS Macro V04-00
[MACRO.SRC]SYMTAB.MAR;1

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2024	965	OPDEF	EMODG	<<<^X54FD>>>	<RG	RW	RG	WL	WG>
2041	966	OPDEF	POLYG	<<<^X55FD>>>	<RG	RW	AB>		
205A	967	OPDEF	CVTGH	<<<^X56FD>>>	<RG	WH>			
2071	968	OPDEF	MOVH	<<<^X70FD>>>	<RH	WH>			
2087	969	OPDEF	CMFH	<<<^X71FD>>>	<RH	RH>			
209D	970	OPDEF	MNEGH	<<<^X72FD>>>	<RH	WH>			
20B4	971	OPDEF	TSTH	<<<^X73FD>>>	RH				
20C8	972	OPDEF	EMODH	<<<^X74FD>>>	<RH	RW	RH	WL	WH>
20E5	973	OPDEF	POLYH	<<<^X75FD>>>	<RH	RW	AB>		
20FE	974	OPDEF	CVTHG	<<<^X76FD>>>	<RH	WG>			
2115	975	OPDEF	CLRH	<<<^X7CFD>>>	WH				
2129	976	OPDEF	CLRO	<<<^X7CFD>>>	WO				
213D	977	OPDEF	MOVH	<<<^X7DFD>>>	<RO	WO>			
2153	978	OPDEF	MOVH	<<<^X7EFD>>>	<AH	WL>			
216A	979	OPDEF	MOVH	<<<^X7EFD>>>	<AO	WL>			
2181	980	OPDEF	PUSHAH	<<<^X7FFD>>>	AH				
2197	981	OPDEF	PUSHAO	<<<^X7FFD>>>	AO				
21AD	982	OPDEF	CVTFH	<<<^X98FD>>>	<RF	WH>			
21C4	983	OPDEF	CVTFG	<<<^X99FD>>>	<RF	WG>			
21DB	984	OPDEF	CVTHF	<<<^XF6FD>>>	<RH	WF>			
21F2	985	OPDEF	CVTHD	<<<^XF7FD>>>	<RH	WD>			

```
2209 987 .SBTTL DIRECTIVES
2209 988 :
2209 989 : LISTED BELOW ARE THE DIRECTIVES FOR THE MARS LANGUAGE.
2209 990 :
2209 991 :
2209 992 :
2209 993 SYM .ADDRESS, KADDRESS
221F 994 SYM .ALIGN, KALIGN
2233 995 SYM .ASCIC, KASCIC
2247 996 SYM .ASCID, KASCID
225B 997 SYM .ASCII, KASCII
226F 998 SYM .ASCIZ, KASCIZ
2283 999 SYM .BLKA, KBLKA
2296 1000 SYM .BLKB, KBLKB
22A9 1001 SYM .BLKD, KBLKD
22BC 1002 SYM .BLKF, KBLKF
22CF 1003 SYM .BLKG, KBLKG
22E2 1004 SYM .BLKH, KBLKH
22F5 1005 SYM .BLKL, KBLKL
2308 1006 SYM .BLKO, KBLKO
231B 1007 SYM .BLKQ, KBLKQ
232E 1008 SYM .BLKW, KBLKW
2341 1009 SYM .BYTE, KBYTE
2354 1010 SYM .CROSS, KCROSS
2368 1011 SYM .DEBUG, KDEBUG
237C 1012 SYM .DEFAULT, KDFLT
2392 1013 SYM .DISABLE, KDSABL
23AB 1014 SYM .DOUBLE, KDOUBLE
23BD 1015 SYM .DSABL, KDSABL
23D1 1016 SYM .D FLOATING, KDOUBLE
23EA 1017 SYM .ENABL, KENABL
23FE 1018 SYM .ENABLE, KENABL
2413 1019 SYM .END, KEND
2425 1020 SYM .ENDC, KENDC
2438 1021 SYM .ENDM, KENDM
244B 1022 SYM .ENDR, KENDR
245E 1023 SYM .ENTRY, KENTRY
2472 1024 SYM .ERROR, KERROR
2486 1025 SYM .EVEN, KEVEN
2499 1026 SYM .EXTERNAL, KEXTRN
24B0 1027 SYM .EXTRN, KEXTRN
24C4 1028 SYM .FLOAT, KFLOAT
24D8 1029 SYM .FIELD, KFIELD
24D8 1030 SYM .F FLOATING, KFLOAT
24F1 1031 SYM .GLOBAL, KGLOBL
2506 1032 SYM .GLOBL, KGLOBL
251A 1033 SYM .G FLOATING, KGFLOAT
2533 1034 SYM .H FLOATING, KHFLOAT
254C 1035 SYM .IDENT, KIDENT
2560 1036 SYM .IF, KIF
2571 1037 SYM .IFF, KIFF
2583 1038 SYM .IF FALSE, KIFF
259A 1039 SYM .IFT, KIFT
25AC 1040 SYM .IF TRUE, KIFT
25C2 1041 SYM .IFTF, KIFTF
25D5 1042 SYM .IF TRUE FALSE, KIFTF
25F1 1043 SYM .IIF, RIIF
```

2603	1044	SYM	.IRPC, KIRPC
2616	1045	SYM	.IRP, KIRP
2628	1046	SYM	.LIBRARY, KLIBRARY
263E	1047	SYM	.LINK, KLINK
2651	1048	SYM	.LIST, KLIST
2664	1049	SYM	.LONG, KLONG
2677	1050	SYM	.MACRO, KMACRO
268B	1051	SYM	.MASK, KVECTOR
269E	1052	SYM	.MDELETE, KMDELETE
26B4	1053	SYM	.MCALL, KMCALL
26C8	1054	SYM	.MEXIT, KMEXIT
26DC	1055	SYM	.NARG, KNARG
26EF	1056	SYM	.NCHR, KNCHR
2702	1057	SYM	.NLIST, KNLIST
2716	1058	SYM	.NOCROSS, KNCROS
272C	1059	SYM	.NOSHOW, KNLIST
2741	1060	SYM	.NTYPE, KNTYPE
2755	1061	SYM	.OCTA, KOCTA
2768	1062	SYM	.ODD, KODD
277A	1063	SYM	.OPDEF, KOPDEF
278E	1064	SYM	.PACKED, KPACKED
27A3	1065	SYM	.PAGE, KPAGE
27B6	1066	SYM	.PRINT, KPRINT
27CA	1067	SYM	.PSECT, KPSECT
27DE	1068	SYM	.QUAD, KQUAD
27F1	1069	SYM	.REF1, KREF1
2804	1070	SYM	.REF2, KREF2
2817	1071	SYM	.REF4, KREF4
282A	1072	SYM	.REF8, KREF8
283D	1073	SYM	.REF16, KREF16
2851	1074	SYM	.REPEAT, KREPT
2866	1075	SYM	.REPT, KREPT
2879	1076	SYM	.RESTORE, KRESTORE
288F	1077	SYM	.RESTORE PSECT, KRESTORE
28AB	1078	SYM	.SAVE, KSAVE
28BE	1079	SYM	.SAVE PSECT, KSAVE
28D7	1080	SYM	.SBTTL, KSBTTL
28EB	1081	SYM	.SHOW, KLIST
28FE	1082	SYM	.SIGNED_BYTE, KSGNB
2918	1083	SYM	.SIGNED_WORD, KSGNW
2932	1084	SYM	.SUBTITLE, KSBTTL
2949	1085	SYM	.TITLE, KTITLE
295D	1086	SYM	.TRANSFER, KXFER
2974	1087	SYM	.WARN, KWARN
2987	1088	SYM	.WEAK, KWEAK
299A	1089	SYM	.WORD, KWORD
29AD	1090	SYM	.VECTOR, KVECTOR
29C2	1091		
29C2	1092	.END	

MACSYMTAB
Symbol table

PERMANENT SYMBOL TABLE

C 13

16-SEP-1984 01:54:17
5-SEP-1984 01:49:57

VAX/VMS Macro V04-00
[MACRO.SRC]SYMTAB.MAR;1

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\$COUNT = 00000002
AB = 00000001
AD = 0000C008
ADMS_ABSOLUTE = 00000002
ADMS_BYTE_DISP = 0000000A
ADMS_DFBYTEDISP = 0000000B
ADMS_DFLONGDISP = 0000000F
ADMS_DFRAUTOINC = 00000009
ADMS_DFWORDDISP = 0000000D
ADMS_IMMEDIATE = 00000001
ADMS_INDEX = 00000004
ADMS_LITERAL = 00000000
ADMS_LONG_DISP = 0000000E
ADMS_MAXMOD = 0000000F
ADMS_PIC = 00000003
ADMS_REGAUTODEC = 00C00007
ADMS_REGAUTOINC = 00000008
ADMS_REGISTER = 00000005
ADMS_RRIND = 00000006
ADMS_WORD_DISP = 0000000C
AF = 00008004
AG = 0000A008
AH = 00009010
AL = 00000004
AO = 00000010
AQ = 00000008
ARG\$K_SIZE = 000003E8
AUD\$K_SIZE = 00000010
AW = 00000002
B = 00000001
BB = 000000A1
BLNK = 00000020
BW = 000000C2
C\$0 = 00000006
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G

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C\$98 = 00000006
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CHR\$M_ILL_CHR = 00000040
CHR\$M_NUM_BER = 00000010
CHR\$M_SPA_MSK = 00000001
CHR\$M_SYM_CH1 = 00000008
CHR\$M_SYM_CHR = 00000004
CHR\$M_SYM_DLM = 00000002
CHR\$V_COMMA_CR = 00000005
CHR\$V_CVTLWC = 00000061
CHR\$V_ILL_CHR = 00000006

CHRSV_NOCVT = 0000007F
CHRSV_NUM_BER = 00000004
CHRSV_SPA_MSK = 00000000
CHRSV_SYM_CH1 = 00000003
CHRSV_SYM_CHR = 00000002
CHRSV_SYM_DLM = 00000001
CR = 0000000D
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CRFSM_DIR = 00000001
CRFSM_MACROS = 00000002
CRFSM_OPCODES = 00000004
CRFSM_REGISTERS = 00000008
CRFSM_SYMBOLS = 00000010
CRFSV_DIR = 00000000
CRFSV_MACROS = 00000001
CRFSV_OPCODES = 00000002
CRFSV_REGISTERS = 00000003
CRFSV_SYMBOLS = 00000004
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DAND = 0000001D
DANGCLS = 00000016
DANGOPN = 00000015
DAT = 00000020
DBGSG_LONGNAMES = 000001FB RG 09
DBUP = 0000002B
DCLS = 00000018
DCOLON = 00000010
DCOMMA = 0000000F
DDIV = 0000001C
DEOL = 0000000B
DEQ = 00000011
DGUP = 0000002C
DINTEGER = 00000022
DISABLE = 00000000
DIUP = 0000002D
DLUP = 0000002E
DMASK = 00000032
DMINUS = 0000001A
DOPCODE = 0000000E
DOPN = 00000017
DOR = 0000001E
DPC = 00000012
DPLUS = 00000019
DPOUND = 00000021
DSQCLS = 00000014
DSQOPN = 00000013
DSUP = 0000002F
DTIMES = 0000001B
DUPA = 00000023
DUPB = 00000024
DUPC = 00000025
DUPD = 00000026
DUPF = 00000028
DUPM = 00000029
DUPO = 00000027
DUPX = 0000002A
DWUP = 00000030

DXOR = 0000001F
ENABLE = FFFFFFFF
ENBSG_ABSADDR = 000000C2 RG 09
ENBSG_DEBUG = 000000F5 RG 09
ENBSG_FLPTRUNC = 000000D3 RG 09
ENBSG_GLOBAL = 00000106 RG 09
ENBSG_LOCALSYMB = 000000E4 RG 09
ENBSG_LONGNAMES = 000001BC RG 09
ENBSG_OPTIONS = 00000128 RG 09
ENBSG_SUPPRESS = 00000128 RG 09
ENBSG_TRACEBACK = 00000117 RG 09
ERR01 = 00000001
ERR02 = 00000002
ERR03 = 00000003
ERR04 = 00000004
ERR05 = 00000005
ERR06 = 00000006
ERR07 = 00000007
ERR08 = 00000008
ERR09 = 00000009
F = 00008004
FF = 0000000C
FLGSM_ALLCHR = 00000001
FLGSM_BOL = 00000002
FLGSM_CHKLPND = 00100000
FLGSM_COMPEXPR = 00000004
FLGSM_CONT = 00000008
FLGSM_CRF = 40000000
FLGSM_CRSEEN = 00000001
FLGSM_DATRPT = 00000010
FLGSM_DBGOUT = 00004000
FLGSM_DLMSTR = 00008000
FLGSM_ENDMCH = 00000020
FLGSM_EVALEXPR = 00000040
FLGSM_EXPOPT = 00000080
FLGSM_EXTERR = 00010000
FLGSM_EXTWRN = 00020000
FLGSM_FIRSTLN = 00000200
FLGSM_IFSTAT = 00800000
FLGSM_IIF = 00400000
FLGSM_INSERT = 00000100
FLGSM_IRPC = 20000000
FLGSM_LEXOP = 00000002
FLGSM_LSTXST = 00000200
FLGSM_MAC2COL = 00000800
FLGSM_MACL = 00000800
FLGSM_MACLTB = 08000000
FLGSM_MACTXT = 00010000
FLGSM_MEBLST = 00001000
FLGSM_MOREARG = 00002000
FLGSM_MOREINP = 00000008
FLGSM_NEWPND = 00000400
FLGSM_NOREF = 01000000
FLGSM_NTTYPEPC = 00000020
FLGSM_NULCHR = 00040000
FLGSM_OBJXST = 00200000
FLGSM_OPNDCHK = 00000100

FLGSM_OPRND = 00002000
FLGSM_OPTVFLIDX = 00001000
FLGSM_ORDLST = 00020000
FLGSM_P2 = 00004000
FLGSM_RPTIRP = 10000000
FLGSM_SEQFIL = 02000000
FLGSM_SKAN = 00008000
FLGSM_SPECOP = 00000004
FLGSM_SPLALL = 04000000
FLGSM_STOIMF = 00040000
FLGSM_SYM2COL = 00000400
FLGSM_TOCFLG = 00080000
FLGSM_UPAFLG = 00000010
FLGSM_UPDFIL = 00000080
FLGSM_UPMARG = 00000040
FLGSM_XCRF = 80000000
FLGSV_ALLCHR = 00000000
FLGSV_BOL = 00000001
FLGSV_CHKLPND = 00000014
FLGSV_COMPEXPR = 00000002
FLGSV_CONT = 00000003
FLGSV_CRF = 0000001E
FLGSV_CRSEEN = 00000020
FLGSV_DATRPT = 00000004
FLGSV_DBGOUT = 0000002E
FLGSV_DLMSTR = 0000002F
FLGSV_ENDMCH = 00000005
FLGSV_EVALEXPR = 00000006
FLGSV_EXPOPT = 00000007
FLGSV_EXTERR = 00000030
FLGSV_EXTWRN = 00000031
FLGSV_FIRSTLN = 00000029
FLGSV_IFSTAT = 00000017
FLGSV_IIF = 00000016
FLGSV_INSERT = 00000008
FLGSV_IRPC = 0000001D
FLGSV_LEXOP = 00000021
FLGSV_LSTXST = 00000009
FLGSV_MAC2COL = 0000002B
FLGSV_MACL = 0000000B
FLGSV_MACLTB = 0000001B
FLGSV_MACTXT = 00000010
FLGSV_MEBLST = 0000000C
FLGSV_MOREARG = 0000002D
FLGSV_MOREINP = 00000023
FLGSV_NEWPND = 0000000A
FLGSV_NOREF = 00000018
FLGSV_NTTYPEPC = 00000025
FLGSV_NULCHR = 00000032
FLGSV_OBJXST = 00000015
FLGSV_OPNDCHK = 00000028
FLGSV_OPRND = 0000000D
FLGSV_OPTVFLIDX = 0000002C
FLGSV_ORDLST = 00000011
FLGSV_P2 = 0000000E
FLGSV_RPTIRP = 0000001C
FLGSV_SEQFIL = 00000019

MACSYMTAB
Symbol table

PERMANENT SYMBOL TABLE

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16-SEP-1984 01:54:17 VAX/VMS Macro V04-00
5-SEP-1984 01:49:57 [MACRO.SRC]SYMTAB.MAR;1Page 32
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FLGSV_SKAN	=	0000000F		
FLGSV_SPECOP	=	00000022		
FLGSV_SPLALL	=	0000001A		
FLGSV_STOIMF	=	00000012		
FLGSV_SYM2COL	=	00000024		
FLGSV_TOCLG	=	00000013		
FLGSV_UPAFLG	=	00000024		
FLGSV_UPDFIL	=	00000027		
FLGSV_UPMARG	=	00000026		
FLGSV_XCRF	=	0000001F		
G	=	0000A008		
GOALSY	=	0000000A		
H	=	00009010		
HASHPT	=	00002985	R	03
HASHSZ	=	0000007F		
HASHVL	=	00000008		
HYPHEN	=	0000002D		
ID	=	0000000C		
INPSK_BUFSIZ	=	000003E8		
INSYM	=	00000004		
INSYMP	=	0000025D	R	09
INSYTM	=	0000025D	R	09
INTSK_BUFSIZ	=	000013F4		
INTSK_BUFWRN	=	00001390		
KADDRESS	=	00000037		
KALIGN	=	0000005A		
KASCIC	=	00000033		
KASCID	=	00000078		
KASCII	=	00000034		
KASCIZ	=	00000035		
KBLKA	=	0000003F		
KBLKB	=	00000040		
KBLKD	=	00000041		
KBLKF	=	0C000042		
KBLKG	=	0000007E		
KBLKH	=	0000007F		
KBLKL	=	00000043		
KBLKO	=	00000080		
KBLKQ	=	00000044		
KBLKW	=	00000045		
KBYTE	=	00000038		
KCROSS	=	00000079		
KDEBUG	=	00000055		
KDFLT	=	0000007B		
KDOUBLE	=	00000039		
KDSABL	=	00000056		
KENABL	=	00000057		
KEND	=	00000076		
KENDC	=	0000004E		
KENDM	=	00000053		
KENDR	=	0000004F		
KENTRY	=	00000058		
KERROR	=	00000071		
KEVEN	=	0000005B		
KEXTRN	=	0000005D		
KFIELD	=	0000003A		
KFLOAT	=	0000003B		

KGFLOAT	=	00000081		
KGLOBL	=	0000005E		
KHFLOAT	=	00000082		
KIDENT	=	0000006A		
KIF	=	00000046		
KIFF	=	00000048		
KIFT	=	00000049		
KIFTF	=	0000004A		
KIIF	=	00000047		
KINCLUDE	=	0000005F		
KIRP	=	0000004B		
KIRPC	=	0000004C		
KLIBRARY	=	00000060		
KLINK	=	00000085		
KLIST	=	00000061		
KLONG	=	0000003C		
KMACRO	=	00000050		
KMCALL	=	00000051		
KMDELETE	=	00000054		
KMEXIT	=	00000052		
KNARG	=	00000063		
KNCHR	=	00000064		
KNCROS	=	0000007A		
KNLIST	=	00000062		
KNTYPE	=	00000074		
KOCTA	=	00000083		
KODD	=	0000005C		
KOPDEF	=	00000075		
KPACKED	=	00000036		
KPAGE	=	00000065		
KPRINT	=	00000072		
KPSECT	=	00000066		
KQUAD	=	0000003D		
KREF1	=	0000006D		
KREF16	=	00000084		
KREF2	=	0000006E		
KREF4	=	0000006F		
KREF8	=	00000070		
KREPT	=	0000004D		
KRESTORE	=	00000067		
KSAVE	=	00000068		
KSBTTL	=	0000006B		
KSGNB	=	0000007C		
KSGNW	=	0000007D		
KTITLE	=	00000069		
KVECTOR	=	00000059		
KWARN	=	00000073		
KWEAK	=	0000006C		
KWORD	=	0000003E		
KXFER	=	00000077		
L	=	00000004		
LST\$G_CONDITION	=	00000004	RG	09
LST\$G_DIRLIST	=	00000045	RG	09
LST\$G_LONGNAMES	=	000000B5	RG	09
LST\$G_MACROBIN	=	00000045	RG	09
LST\$G_MACROCALL	=	00000024	RG	09
LST\$G_MACRODEF	=	00000014	RG	09

LST\$G_MACROXPAN	=	00000034	RG	09
LST\$K_BUFSIZ	=	00000086		
LST\$K_L_P_PAGE	=	0000003C		
LST\$K_TITLE_SIZE	=	00000028		
MAC\$AL_PRMHSHTB	=	00000000	RG	04
MAC\$AL_UMHSHTB	=	00000000	RG	06
MAC\$AL_USYHSHTB	=	00000000	RG	05
MAC\$AW_ILLMODTB	=	0000015C	RG	03
MAC\$CRF_OPTIONS	=	00000153	RG	03
MAC\$DFLT_LIST	=	00000233	RG	09
MAC\$DSPL_ARGS	=	0000025D	RG	09
MAC\$G_LSNAM	=	0000021D	RG	09
MAC\$G_SPLMC_DIR	=	000000DF	RG	03
MAC\$MAC_DEF_END	=	*****	X	03
MAC\$MAC_IN_MAC	=	*****	X	03
MAC\$SET_ALL_CHR	=	*****	X	03
MACTXT	=	0000000D		
MAC_SUBSYS	=	0000007D		
MB	=	00000041		
MD	=	0000C048		
MF	=	00008044		
MG	=	0000A048		
MH	=	00009050		
ML	=	00000044		
MO	=	00000050		
MQ	=	00000048		
MSK_LH	=	FFFF0000		
MSK_RH	=	0000FFFF		
MW	=	00000042		
O	=	00000010		
OBJ\$K_BUFSIZ	=	00000200		
OPD\$M_ADDR	=	00000000		
OPD\$M_BB	=	000000A1		
OPD\$M_BW	=	000000C2		
OPD\$M_D_FLOAT	=	0000C000		
OPD\$M_FFLOAT	=	00008000		
OPD\$M_G_FLOAT	=	0000A000		
OPD\$M_H_FLOAT	=	00009000		
OPD\$M_MODE	=	000003E0		
OPD\$M_MODIFY	=	00000040		
OPD\$M_NOT_32F	=	00007000		
OPD\$M_READ	=	00000020		
OPD\$M_VFIELD	=	00000080		
OPD\$M_WRITE	=	00000060		
OPD\$S_MODE	=	00000005		
OPD\$S_SIZE	=	00000005		
OPD\$V_D_FLOAT	=	0000000E		
OPD\$V_FFLOAT	=	0000000F		
OPD\$V_G_FLOAT	=	0000000D		
OPD\$V_H_FLOAT	=	0000000C		
OPD\$V_MODE	=	00000005		
OPD\$V_SIZE	=	00000000		
OPF\$M_LASTOPR	=	00002000		
OPF\$M_OPTEXP	=	00001000		
OPF\$V_LASTOPR	=	0000000D		
OPF\$V_OPTEXP	=	0000000C		
PSC\$B_NAME	=	00000004		

Symbol	Value	Symbol	Value	Symbol	Value	Symbol	Value
PSC\$B_SEG	0000000C	RDX\$V_DECIMAL	= 00000002	\$S21	= 0000259F	R	03
PSC\$B_UNUSED	0000000B	RDX\$V_DOUBLE	= 00000005	\$S22	= 000023F1	R	03
PSC\$G_OPTIONS	0000014B RG 08	RDX\$V_FLOAT	= 00000004	\$S23	= 0000223A	R	03
PSC\$K_BLKSI2	00000013	RDX\$V_GFLOAT	= 00000006	\$S24	= 0000224E	R	03
PSC\$K_NO_OPTNS	= 0000000A	RDX\$V_HEX	= 00000003	\$S25	= 000015DD	R	03
PSC\$K_CURLOC	0000000F	RDX\$V_HFLOAT	= 00000007	\$S26	= 000024A3	R	03
PSC\$K_LINK	00000000	RDX\$V_OCTAL	= 00000001	\$S27	= 0000236F	R	03
PSC\$K_MAXLGTH	00000005	REG\$_PC	= 0000000F	\$S28	= 00002967	R	03
PSC\$M_ABS	= FFFFFFFF7	RF	= 00008024	\$S29	= 0000268B	R	03
PSC\$M_ALIGNFLG	= 00004000	RG	= 0000A028	\$S3	= 00001449	R	03
PSC\$M_ALLOPTNS	= 000003FF	RH	= 00009030	\$S30	= 000019EC	R	03
PSC\$M_BYTE	= 00004000	RL	= 00000024	\$S31	= 00002226	R	03
PSC\$M_CON	= FFFFFFFFB	RO	= 00000030	\$S32	= 00001179	R	03
PSC\$M_DEFAULT	= 000001C8	RQ	= 00000028	\$S33	= 0000158A	R	03
PSC\$M_EXE	= 000000C0	RRREG	= 00000031	\$S34	= 00002781	R	03
PSC\$M_GBL	= 00000010	RW	= 00000022	\$S35	= 0000293C	R	03
PSC\$M_LCL	= FFFFFFFEF	\$S0	= 000021E1 R 03	\$S36	= 0000250D	R	03
PSC\$M_LIB	= 00000002	\$S1	= 00002104 R 03	\$S37	= 00001C76	R	03
PSC\$M_LONG	= 00004800	\$S10	= 000025F6 R 03	\$S38	= 0000267E	R	03
PSC\$M_NOEXE	= FFFFFFFBF	\$S100	= 000025B5 R 03	\$S39	= 00001A4E	R	03
PSC\$M_NOPIC	= FFFFFFFFE	\$S101	= 00000B70 R 03	\$S4	= 00001935	R	03
PSC\$M_NORD	= FFFFFFFF7F	\$S102	= 000024F9 R 03	\$S40	= 00002553	R	03
PSC\$M_NOSHR	= FFFFFFFDF	\$S103	= 00002347 R 03	\$S41	= 000013D3	R	03
PSC\$M_NOVEC	= FFFFFFFDF	\$S104	= 00001D0B R 03	\$S42	= 000024CB	R	03
PSC\$M_NOWRT	= FFFFFFFEF	\$S105	= 00001DCB R 03	\$S43	= 00001FE8	R	03
PSC\$M_OVR	= 00000004	\$S106	= 00001DE2 R 03	\$S44	= 0000208C	R	03
PSC\$M_PAGE	= 00006400	\$S107	= 0000297A R 03	\$S45	= 0000211A	R	03
PSC\$M_PIC	= 00000001	\$S108	= 00001D3B R 03	\$S46	= 00002276	R	03
PSC\$M_QUAD	= 00004C00	\$S109	= 00001DFB R 03	\$S47	= 00001823	R	03
PSC\$M_RD	= 00000080	\$S11	= 000011B9 R 03	\$S48	= 000023DD	R	03
PSC\$M_REL	= 00000008	\$S110	= 0000286C R 03	\$S49	= 00001839	R	03
PSC\$M_SHR	= 00000020	\$S111	= 000029A0 R 03	\$S5	= 00001EE6	R	03
PSC\$M_USR	= FFFFFFFFD	\$S112	= 000023B0 R 03	\$S50	= 000024E4	R	03
PSC\$M_VEC	= 00000200	\$S113	= 0000202A R 03	\$S51	= 000027D1	R	03
PSC\$M_WORD	= 00004400	\$S114	= 000020CE R 03	\$S52	= 000025E4	R	03
PSC\$M_WRT	= 00000180	\$S115	= 00001FFF R 03	\$S53	= 000014F9	R	03
PSC\$S_ALIGNMENT	= 00000004	\$S116	= 000028F1 R 03	\$S54	= 00002950	R	03
PSC\$V_ALIGNFLG	= 0000000E	\$S117	= 000007DD R 03	\$S55	= 00000DD1	R	03
PSC\$V_ALIGNMENT	= 0000000A	\$S118	= 00002859 R 03	\$S56	= 000010F8	R	03
PSC\$V_EXE	= 00000006	\$S12	= 00001217 R 03	\$S57	= 00001C88	R	03
PSC\$V_GBL	= 00000004	\$S120	= 00002844 R 03	\$S58	= 00001B66	R	03
PSC\$V_LIB	= 00000001	\$S121	= 000012D2 R 03	\$S59	= 000026CF	R	03

MAC\$SYMTAB
Symbol table

PERMANENT SYMBOL TABLE

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5-SEP-1984 01:49:57 [MACRO.SRC]SYMTAB.MAR;1

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S\$73	=	00001DB2	R	03	SYMSV_ABS	=	00000004
S\$74	=	00001B4C	R	03	SYMSV_ASN	=	00000008
S\$75	=	00002631	R	03	SYMSV_CRFO	=	0000000D
S\$76	=	000015C7	R	03	SYMSV_DEBUG	=	00000005
S\$77	=	0000242B	R	03	SYMSV_DEF	=	00000000
S\$78	=	0000229C	R	03	SYMSV_DELMAC	=	00000009
S\$79	=	00002188	R	03	SYMSV_EPT	=	00000009
S\$8	=	000029B5	R	03	SYMSV_EXTRN	=	00000003
S\$80	=	000027A9	R	03	SYMSV_GLOBL	=	00000002
S\$81	=	00001725	R	03	SYMSV_LOCAL	=	00000006
S\$82	=	000022C2	R	03	SYMSV_ODBG	=	0000000A
S\$83	=	000022D5	R	03	SYMSV_REF	=	00000007
S\$84	=	000022E8	R	03	SYMSV_RELPSECT	=	0000000B
S\$85	=	00000C88	R	03	SYMSV_SUPR	=	0000000E
S\$86	=	0000219E	R	03	SYMSV_WEAK	=	00000001
S\$87	=	0000243E	R	03	SYMSV_XCRF	=	0000000C
S\$88	=	000022FB	R	03	SYMSV_FLAG	=	00000009
S\$89	=	00001F5D	R	03	SYMLN	=	00000007
S\$9	=	0000276D	R	03	TAB	=	00000009
S\$90	=	00002882	R	03	VB	=	00000081
S\$91	=	0000298D	R	03	VD	=	0000C088
S\$92	=	000025C8	R	03	VF	=	00008084
S\$93	=	00002796	R	03	VG	=	0000A088
S\$94	=	000027E4	R	03	VH	=	00009090
S\$95	=	00002691	R	03	VL	=	00000084
S\$96	=	000011D1	R	03	VO	=	00000090
S\$97	=	00002644	R	03	VQ	=	00000088
S\$98	=	000028B1	R	03	VW	=	00000082
S\$99	=	0000266A	R	03	W	=	00000002
SEMI	=	0000003B			WB	=	00000061
SHF_LH	=	00000010			WD	=	0000C068
SIGN_BIT	=	80000000			WF	=	00008064
STBSK_PG_MISS	=	0000000A			WG	=	0000A068
SYMSB_NAME	=	00000004			WH	=	00009070
SYMSB_SEG	=	0000000C			WL	=	00000064
SYMSB_TOKEN	=	0000000B			WO	=	00000070
SYMSK_BLKSI2	=	0000000D			WQ	=	00000068
SYMSK_MAXLEN	=	0000001F			WW	=	00000062
SYMSK_TWOCOL	=	00000010			X	=	00000010
SYMSL_LINK	=	00000000			X1	=	00000033
SYMSL_VAL	=	00000005			X2	=	00080000
SYMSM_ABS	=	00000010			XXX	=	00000080
SYMSM_ASN	=	00000100			Z	=	0000ABFF
SYMSM_CRFO	=	00002000					
SYMSM_DEBUG	=	00000020					
SYMSM_DEF	=	00000001					
SYMSM_DELMAC	=	00000200					
SYMSM_EPT	=	00000200					
SYMSM_EXTRN	=	00000008					
SYMSM_GLOBL	=	00000004					
SYMSM_LOCAL	=	00000040					
SYMSM_ODBG	=	00000400					
SYMSM_REF	=	00000080					
SYMSM_RELPSECT	=	00000800					
SYMSM_SUPR	=	00004000					
SYMSM_WEAK	=	00000002					
SYMSM_XCRF	=	00001000					

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes
. ABS .	00000000 (0.)	00 (0.)	NOPIC USR CON ABS LCL NOSHR NOEXE NORD NOWRT NOVEC BYTE
. BLANK .	00000000 (0.)	01 (1.)	NOPIC USR CON REL LCL NOSHR EXE RD WRT NOVEC BYTE
\$AB\$\$	00000013 (19.)	02 (2.)	NOPIC USR CON ABS LCL NOSHR EXE RD WRT NOVEC BYTE
MAC\$PRMSYMTAB	000029C2 (10690.)	03 (3.)	NOPIC USR CON REL GBL NOSHR NOEXE RD NOWRT NOVEC LONG
MAC\$PHASHTAB	00000200 (512.)	04 (4.)	NOPIC USR CON REL GBL NOSHR NOEXE RD NOWRT NOVEC LONG
MAC\$USERHASHTAB	00000200 (512.)	05 (5.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
MAC\$USRMACROHSH	00000200 (512.)	06 (6.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
MAC\$PSECT TAB	0000003A (58.)	07 (7.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG
MAC\$PSC OPTIONS	00000154 (340.)	08 (8.)	NOPIC USR CON REL GBL NOSHR NOEXE RD NOWRT NOVEC LONG
MAC\$ENBDSABLTAB	00000266 (614.)	09 (9.)	NOPIC USR CON REL LCL NOSHR NOEXE RD WRT NOVEC LONG

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.02	00:00:00.61
Command processing	103	00:00:00.37	00:00:03.70
Pass 1	1074	00:00:43.56	00:02:57.01
Symbol table sort	0	00:00:00.58	00:00:02.36
Pass 2	266	00:00:09.77	00:00:39.14
Symbol table output	64	00:00:00.35	00:00:01.70
Psect synopsis output	4	00:00:00.03	00:00:00.38
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	1543	00:00:54.68	00:03:44.90

The working set limit was 2550 pages.
456772 bytes (893 pages) of virtual memory were used to buffer the intermediate code.
There were 40 pages of symbol table space allocated to hold 784 non-local and 0 local symbols.
1092 source lines were read in Pass 1, producing 103 object records in Pass 2.
14 pages of virtual memory were used to define 9 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
_\$255\$DUA28:[MACRO.OBJ]MACRO.MLB;1	9
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0
TOTALS (all libraries)	9

518 GETS were required to define 9 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:SYMTAB/OBJ=OBJ\$:SYMTAB MSRC\$:SYMTAB/UPDATE=(ENH\$:SYMTAB)+LIB\$:MACRO/LIB

0227 AH-BT13A-SE
VAX/VMS V4.0

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